

IN THE CLAIMS:

Cancel claims 1-21 and add new claims 22-29, as follows:

1.-21. (Canceled)

22. (New) In a digital television system, the combination comprising:

a multiplexer mechanism responsive to a plurality of separate digital television program signal transport streams for multiplexing the separate program signal transport streams into a single combined signal transport stream;

a security mechanism responsive to the single combined signal transport stream for controlling access thereto;

and a demultiplexer mechanism coupled to the security mechanism for receiving an access-allowed combined signal transport stream and demultiplexing same for producing separate digital television program signal transport streams corresponding to the separate program signal transport streams received by the multiplexer mechanism; wherein

the multiplexer mechanism includes a plurality of input FIFO storage mechanisms for individually receiving signal packets of different ones of the separate program signal transport streams and FIFO readout circuitry coupled to the outputs of the input FIFO storage mechanisms for producing a single combined signal transport stream;

and the demultiplexer mechanism includes a plurality of output FIFO storage mechanisms and FIFO read-in circuitry coupled to the output of the security mechanism for transferring signal packets from the different program signal transport streams to their respective ones of the output FIFO storage mechanisms; and wherein

the FIFO readout circuitry includes control circuitry for enabling each signal packet to be read out only after the packet is fully resident in its FIFO storage mechanism.

23. (New) A digital television system in accordance with claim 22 wherein the FIFO readout circuitry includes control circuitry for causing a next signal packet to be read from a different one of the FIFO storage mechanisms when such different one of the FIFO storage mechanisms has a signal packet ready for reading.

24. (New) A digital television system in accordance with claim 22 wherein the FIFO readout circuitry includes control circuitry for switching to a different FIFO storage mechanism after each signal packet is read out, except that a second signal packet may be read from the same FIFO storage mechanism if it has a signal packet ready and the other FIFO storage mechanisms do not have a signal packet ready.

25. (New) A digital television system in accordance with claim 22 and including a packet marker mechanism for receiving the signal packets in one of the signal transport streams and changing the coding of the sync byte in each such packet to a unique identifier value before it is supplied to its FIFO storage mechanism.

26. (New) A digital television system in accordance with claim 25 wherein the packet marker mechanism comprises:

detector circuitry for detecting the occurrence of a sync byte and producing a control signal; and,

exclusive OR circuitry responsive to the control signal for changing the coding of the sync byte to the unique identifier value.

27. (New) A digital television system in accordance with claim 22 and including control circuitry for enabling signal packets to be transferred from the FIFO storage mechanisms to a utilization mechanism only after the packet is fully resident in its FIFO storage mechanism.

28. (New) A digital television system in accordance with claim 25 and including a packet marker mechanism for restoring the coding of the packet sync bytes for one at least of the

programs to a normal sync code value before they are transferred to their FIFO storage mechanism.

29. (New) A digital television system in accordance with claim 26 and including a packet marker mechanism for restoring the coding of the packet sync bytes for one at least of the programs to a normal sync code value before they are transferred to their FIFO storage mechanism.